CASE REPORT

Cervical Osteophyte-Induced Dysphagia: A Case Report

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ABSTRACT

Anterior cervical osteophytes are a rare but important cause of dysphagia, especially in elderly patients with comorbidities such as cervical spondylosis, diabetes, and hypertension. A 65-year-old male presented with progressive dysphagia to solids and a throat discomfort. Video laryngoscopy revealed a posterior pharyngeal wall bulge, and cervical spine X-ray showed a prominent anterior osteophyte at the C5 level causing pharyngeal compression. The patient improved with conservative treatment and was informed about the possible need for surgery if symptoms progressed, emphasizing patient awareness. This case highlights the importance of considering cervical osteophytes in dysphagia evaluation and the role of imaging in diagnosis.

Keywords: Anterior cervical osteophyte, dysphagia, cervical spondylosis, diffuse idiopathic skeletal hyperostosis (DISH), Osteophytectomy, mechanical compression.

INTRODUCTION

Dysphagia, a disruption in the swallowing process, is more common in the elderly and often related to anatomical changes in the head and neck region. Contributing factors include comorbidities and diseases of the upper aerodigestive tract. Anterior cervical osteophytosis (ACO), characterized by ossification along cervical ligaments, can compress the pharynx or esophagus, causing oropharyngeal dysphagia. Advanced cases may lead to weight loss and malnutrition. Management includes dietary modifications, postural corrections, and swallowing maneuvers. Targeted treatment and multidisciplinary care improve outcomes and quality of life.

Case Presentation

A 65-year-old male, with a known history of type 2 diabetes mellitus and hypertension, presented with complaints of progressive dysphagia to solid foods for the past two years. The dysphagia was associated with a persistent foreign body sensation in the throat, but no episodes of aspiration were reported. His medical history included cervical spondylosis, percutaneous transluminal coronary angioplasty (PTCA) performed 10 years ago, and a laparoscopic appendicectomy, also 10 years back. He had history of smoking one pack of cigarettes daily for 40 years. The patient initially took orthopedic consultation due to a sudden onset of shoulder pain, where a diagnosis of cervical spondylosis was confirmed. He was subsequently referred to the ENT department for further evaluation of his dysphagia. On ENT examination, there was no abnormality detected in the tongue or oral cavity. However, video laryngoscopy revealed a posterior pharyngeal wall bulge. A lateral cervical spine X-ray demonstrated a large anterior cervical osteophyte at the C5 vertebral level

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causing mechanical compression of the pharynx. The patient also underwent upper gastrointestinal endoscopy (UGIE) to rule out any other cause for dysphagia. The UGIE was within normal limits except the bulge in the posterior pharyngeal wall. The patient responded well to conservative treatment and was counselled about the possibility of surgical intervention in case of future symptom progression

DISCUSSION

Anterior cervical osteophytes are a rare but important cause of dysphagia, often underdiagnosed in elderly patients with cervical spondylosis or diffuse idiopathic skeletal hyperostosis (DISH).[1,2,10] The prevalence of anterior cervical osteophytes (ACOs) in the elderly is 20–30%, with up to 28% of patients presenting with dysphagia.[2] In this case, a C5-level osteophyte was identified as the structural cause of oropharyngeal compression, consistent with previously described mechanisms. These osteophytes typically develop from chronic degenerative changes or systemic ossifying disorders. The pathogenesis of dysphagia involves mechanical compression of the posterior pharyngeal wall or esophagus, local soft tissue inflammation, and cricopharyngeal dysfunction.[3,4] Kolz et al. emphasized mechanical obstruction as the leading factor in their surgical cohort, with additional contributions from surrounding soft tissue reactions.[4] Anatomical location is critical in symptom manifestation. Osteophytes at C3–C5 are more likely to cause oropharyngeal symptoms due to proximity to the pharynx and larynx. High cervical osteophytes may displace the epiglottis and laryngeal inlet, complicating deglutition and airway protection, while lower ones may compress the esophagus or trachea, occasionally causing dyspnoea or hoarseness.[5,6,9] Though the condition is often progressive, symptom severity can vary. In this case, the patient had dysphagia without airway compromise. He responded well to conservative treatment including analgesics, physiotherapy and dietary modifications where he was advised to take small frequent meals and avoidance of hard dry foods. He was also appropriately counselled regarding the potential need for surgical intervention should symptoms worsen, as supported in previous literature.[1,4,6] Surgical osteophytectomy is typically indicated for severe or refractory cases, or where complications such as aspiration, malnutrition, or airway compromise arise. Moghamis et al. and Shimizu et al. have reported excellent surgical outcomes, with or without spinal fusion.[1,6] Kolz et al. noted that 79% of patients had significant symptomatic improvement following resection.[4] Ruetten et al. similarly reported durable symptom relief via anterior resection with minimal complications.[7] Diagnostic evaluation should include radiographs, computed tomography scan (CT) for osteophyte delineation, and magnetic resonance imaging (MRI) to assess spinal canal involvement.[3,8] Functional assessment with flexible endoscopic evaluation of swallowing (FEES) further informs management. While recurrence is uncommon, NSAIDs or radiotherapy have been proposed to prevent heterotopic ossification, particularly in patients with DISH.[7,8,10] This case highlights the need to consider anterior cervical osteophytes in patients with unexplained dysphagia and reinforces that conservative management can be effective in selected cases.

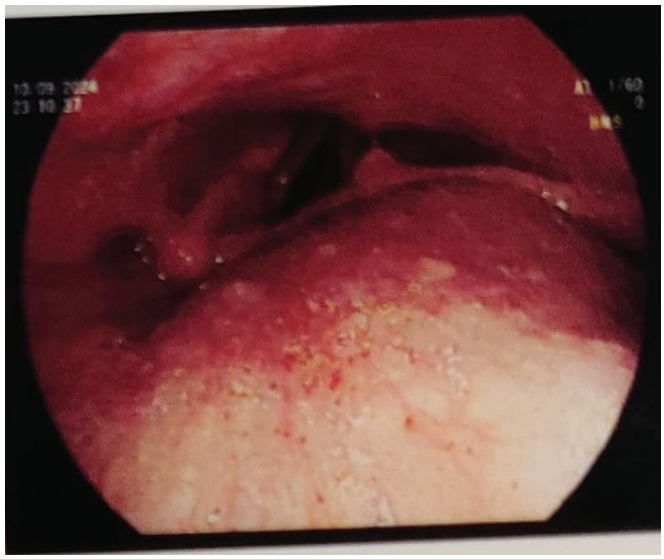

Figure 1: Video laryngoscopy showing posterior pharyngeal wall bulge

Figure 2: X-ray soft tissue neck in anteroposterior (A) and lateral view (B) showing C5 anterior cervical osteophyte (red arrow)

CONCLUSIONS

Anterior cervical osteophytes represent a rare but reversible cause of dysphagia, especially in elderly individuals with underlying cervical spondylosis or DISH. Dysphagia arises primarily from mechanical compression or displacement of the pharynx and esophagus. High cervical osteophytes(C1-C4) may narrow the hypopharynx and displace the epiglottis and larynx, while lower osteophytes(C5-C7) can anteriorly shift the trachea and esophagus, occasionally causing respiratory

symptoms.[2,5,6] Accurate diagnosis involves cervical spine CT and flexible endoscopic evaluation of swallowing, with MRI playing a crucial role in assessing associated neural compression.[3,8] While conservative treatment may suffice in mild cases, surgical resection that is osteophytectomy is effective in severe or progressive presentations.[1,4,6,7] Clinicians should maintain a high index of suspicion in patients with unexplained dysphagia to ensure timely diagnosis and avoid complications such as aspiration, malnutrition, or airway compromise.

DISCLOSURE

This case was presented at the 35th Annual Conference of the North East Branch of the Association of Otolaryngologists of India (NEBAOI) on 24th October 2024 as a poster presentation.

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